

ARMY COMMUNICATOR

Volume 2, Issue 1
November 2019



Line of Sight Radio

Plus:

- *Branching Signal*
- *Air Defense*
- *Signal Spotlight*

Contents

3. Letter from the Editor

4. Command Team

5. Branching Signal

8. Multiple Signal Pathways

13. Air Defense Communication

16. Potential ESB Force Structure Change

19. High-Capacity Network Systems

23. Signal Spotlight

The Army Communicator is published as a command information e-publication for the men and women of the United States Army Signal Corps under the provisions of AR 360-1.

Opinions expressed herein do not necessarily reflect the views of Office, Chief of Signal, the US Army or the Department of Defense.

Submit articles, photos, graphics, videos, story ideas, and nominations for “Signaleer in the Spotlight” to the editor [here](#). For additional information, please call (706) 791-7384.

BG Christopher L. Eubank
Chief of Signal

CSM Richard D. Knott
Signal Corps Command Sergeant Major

CW5 Garth R. Hahn
Signal Corps Chief Warrant Officer

Nicholas M. Spinelli
Editor-in-Chief

On the Cover

PM Tactical Network concluded new equipment training on the high-throughput Terrestrial Line Of Sight (TRILOS) Radio to the 2nd Armored Brigade Combat Team, 3rd Infantry Division.
Photo by Amy Walker.



Letter from the Editor

To all our Readers,

Thank you for joining us again! This issue marks one year since the relaunch of the Army Communicator as a bi-monthly digital publication, and I don't think any of us expected it to be as enthusiastically received as it has been. Thank you all for reading and for your feedback. It's incredibly appreciated and while it seems clichéd, it's completely honest: we absolutely would not be producing this today if it weren't for all of you.

When we launched last September, our goal was to expand from a quarterly technical journal to an all-purpose, multi-media publication covering all facets of the Signal Corps. We've come a long way since we started last fall and we're still

working towards getting better and better with each issue.

We've got some big changes coming up in the New Year. For starters, beginning in January, the Army Communicator is going monthly. This is a direct response to all the fantastic content everyone has been submitting. We've had to put some great articles on the backburner due to our schedule and hopefully, by increasing the number of issues we release in a year, we will be able to publish everything you all submit.

We'll also be introducing a few new recurring columns that we hope you'll like. Every month, we'll have features on Signal Tech, Signal History, and a continuation of our Signal Spotlight which highlights Signal Soldiers and their accomplishments in and out of uniform. There's one more thing we want to start, but this one depends on you. We would love to introduce a letters page. What did you think of the last issue? What are your responses to some of our articles? What would you like to see us feature in the future? Let us know by emailing us here, and maybe you'll get to see your letter in print.

Speaking of getting in print, how would you like to be a published author? It's easier than you think. With an increased publishing schedule comes an increased need for content. So, if you've got an idea for an article or some photos that capture life in the Signal Corps, send them our way.

Once again, thank you for reading. It's been a great year, and all of us here are looking forward to the next one.



Chief of Signal Regimental Team

Welcome back to the Communicator! This summer has been a busy one and there is no plan to slow down! Every year, the Signal Corps assess new officers into our ranks. We are the second largest branch and one of the most competitive branches in the Army. Each summer over 8,000 cadets attend Cadet Summer Training at Fort Knox, KY. This training is the capstone before cadets select which branch they would prefer to serve. This provides the Signal School the opportunity to send representatives there to teach cadets what it would mean to be a Signal Officer. Though the summers there are hot, the cadets gain a real insight on what their next four years may look like.

While ROTC cadets are at Fort Knox, West Point cadets learn about their career op-

tions through branch week on campus. Every proponent sets up a booth on the parade field to communicate with cadets what their daily tasks and duties would be. This year however, things were a little different. In order to assess into the Signal Corps, USMA cadets are now required to complete an interview with our team from the Signal School. With over 130 interviews complete, the Signal Corps' future is looking bright.

Signal Soldiers all over the world continuously prove why our job is vital to the success of our Army. As new lieutenants enter our ranks, it is essential we guide and mentor them to continue our legacy. The Signal Regiment is multi-disciplined and ready to meet signal requirements in peace and war. We are interested in what you and your Soldiers are doing every day for the Regiment so if you would like to submit an article or photographs for the next edition, please contact us.



BG Christopher Eubank
Chief of Signal



CSM Richard Knott
Regimental CSM



CW5 Garth Hahn
Regimental CWO

Branching Signal



Lt. Kevin Thomas, addresses potential future Signal Officers.
Photo by Cpt. Alston Shields.

Cpt. Alston Shields
Office Chief of Signal

Even with the sun just starting to break the tree line, the temperature is already uncomfortable. Slowly, tents begin to open up as teams roll sides and doors. Banners are placed outside on the board-

walk along with the eye catching static displays. As each team completes their morning ritual of preparing their area, busses begin to file in carrying over 600 hopeful cadets. Today is a day specifically designed for them and their plan of the future.

Every summer one of the most important events in a cadet's life occurs at the Gold Standard Post (Fort Knox). It is here that each cadet is evaluated and tested in a myriad of ways in order to rank them based on performance. This is the largest portion of their Order of Merit (OML) that will eventually help them in receiving a desired branch. It is at this time that cadets are given the chance to gain more information on the branch-



Brig. Gen. Christopher Eubank,
Chief of Signal and Commandant
of the U.S. Army Signal School,
addresses potential future Signal
Officers.
Photo by Cpt. Noel Bartley

es they may be interested in.

Much like a career fair, branches set up, stage displays, and hold informational briefings on opportunities available. This is the final chance cadets will have to gather information before locking in their decisions. Over 8,000 hopeful cadets attend annually and this is the largest venue for each branch to sell their pitch. Over the course of two months and 150 briefings Signal was able to reach 2,300 cadets.

This is the time when cadets are exposed to some of the new technology reaching the regiment and to ask questions of those that are currently working within the field. This is the best place for cadets to learn as much as they can not only about what they will be doing within that branch, but what exactly each branch is looking for when making their selections. As the Army moves to a talent based market system, cadet and proponent preference matches become more important than OML.

ROTC is not the only commissioning source to see such large changes. The United States Military Academy (USMA) hosts their own branch fair every fall. Much like CST this is a chance for the USMA cadets to learn more about each of the branches and how they fit into the Army structure. Over the course of five days, USMA cadets are given the opportunity to speak with Soldiers and junior officers from each branch to learn as much as they can before making their branch determinations.

This year was quite different as USMA seniors piloted a new accessions process giving proponents more say in who enters their branch. An added metric after the traditional talent priorities, degree, GPA, and APFT is now the availability of conducting an interview. During the four days Signal supported branch week, over 140 interviews were conducted with each of the hopefuls attempting to compete for one of the 38 available slots. As we move to a more open market branching system these interviews will become increasingly more important.



Signal Branch set up a tent showcasing the new expeditionary networking equipment at USMA Branch Week. Photo by Cpt. Alston Shields.

Multiple Signal Pathways Elevate Mission Success



Paratroopers with C Company, 1-508th Parachute Infantry Regiment (PIR), 82nd Airborne Division (Airborne) assess the Integrated Tactical Network (ITN) while performing an air assault exercise.
Photo by Justin Eimers.

Cpt. Jonathan Dodge and
Kathryn Bailey
PEO C3T

The loss of communications, if only for a few minutes, can hinder a commander's ability to lead and fight.

For the signal Soldier, who must maintain the Army's voice, data and information systems, this inopportune interruption can place all eyes on him or her to ensure the mission stays on track. A new concept, called the Integrated Tactical Network (ITN), part of the Army's tactical network capability set plans, is one of the Army's new efforts to mitigate these potentially dangerous communications lapses, often encountered as a result of contested and congested environments.

Through the ITN framework, the Army will provide primarily battalion and below echelons with flexible communications options in threat-

based environments.

The ITN, approach injects new commercial components and network transport capabilities into the Army's tactical network environment. These components include several varieties of software-defined tactical radios, including both single channel radios and two-channel Leader Radios, tethered drones, small satellite terminals and commercial phone technology. ITN radios deliver applications through a Net Warrior end-user device (EUD) to consolidate the air, ground and fires pictures onto a single secure common operating picture.



Capt. Jonathan Dodge, assistant product manager for Helicopter and Multi-Mission Radios assigned to the PM for Tactical Radios, accompanied the 1st Security Forces Assistance Brigade (1SFAB) to Afghanistan to set up their radio networks using the Integrated Tactical Network (ITN).
U.S. Army Photo.

One key change the ITN brings to the Army's tactical network is the ability to operate over the Secure But Unclassified (SBU) security enclave, which leverages a combination of military and commercially available networks. By adding SBU to the Army's Commercial National Security Algorithm (CNSA), signal Soldiers are no longer restricted to communications across a single-path

transport. Multiple pathway options allow the generation of a more robust Primary, Alternate, Contingency and Emergency (PACE) plan in contested or congested environments.

"Because the majority of tactical information below the battalion level is time-sensitive, perishable and unclassified communications, the secret network is not necessarily optimal in all operating conditions," said Lt. Col. Brandon Baer, who is a product manager on the ITN effort. "SBU's multiple layers of encryption are very secure, providing commanders with multiple communication path options."

To assure the network meets Soldier and mission requirements, the Army is teaming with multiple units to experiment with ITN functionality using Developmental/Operations. Developmental/Operations (DevOps) is a proven industry practice that places material developers from industry side-by-side with Soldiers and commanders in operational units. This

incremental development process enables the Army to evaluate potential technology concepts and solutions earlier and more frequently. It also allows for the collection of feedback in real time and generation of new requirements, both with capability development and training doctrine and tactics.

This will lead to initial ITN fieldings to Infantry Brigade Combat Teams (IBCTs) starting in fiscal year 2021, with capability set fieldings continuing on a two-year basis to additional IBCTs, Armored BCTs, and Stryker BCTs.

PEO C3T is teamed with the U.S. Army Network-Cross Functional Team (N-CFT) on



Paratroopers with C Company, 1-508th Parachute Infantry Regiment (PIR), 82nd Airborne Division (Airborne) communicate using the Integrated Tactical Network (ITN) during a battle drill to clear buildings during a live fires exercise.

Photo by Justin Eimers.

these experimentation and proof-of-concept efforts that are underway with U.S. Army Forces Command units.

The Army is also incorporating lessons learned from fielding ITN components to the 1st Security Force Assistance Brigade (SFAB). The 1st SFAB deployed quickly to meet urgent mission requirements and therefore did not

have sufficient training time incorporating the ITN concept.

“We deployed some of our team to Afghanistan to help the 1st SFAB bridge the training gap, and the units quickly learned to conduct their missions using the ITN,” Baer said. “We gathered their feedback, continued to refine our training, and by the time we fielded to the 2nd SFAB, Soldiers asked for less classroom training – they were ready to take it to the field and give it a try.”

Rapid fielding of ITN capabilities will likely require new training paradigms both in training frequency and types of training. These new methodologies will be assessed along with the BCT demonstrations, and we will tailor them to what is likely going to be required once large-scale Army-wide fielding begins.



Project Manager Tactical Network provided new equipment training and fielding on SCOUT satellite terminals to the 1st Security Force Assistance Brigade in Afghanistan. U.S. Army photo.

To the signaller at higher echelons, the ITN concept may sound like a capability that could potentially push complexity up from the lower to the upper tactical network. To address Signal Soldiers' network complexity concerns, the Army is incorporating its overarching Unified Network Operations (UNO) effort, which focuses on delivering assured network transport in a contested environment. UNO enables communications officers from the tactical edge up through Corp to plan, configure, manage, monitor, control, secure, and defend their network assets.

"To achieve UNO, the Army is leveraging commercial technology and integrating that technology through open architectures to provide a common look and feel to Soldiers at all echelons," said John Kantonides, chief engineer on the UNO effort. "This allows us to simplify and reduce the number of



A forward observer with C Company, 1-508th Parachute Infantry Regiment (PIR), 82nd Airborne Division (Airborne) uses AN/PRC 148 2-channel Leader radio to transmit position location information obtained from the Android Tactical Assault Kit (ATAK). Photo by Justin Eimers.

network management tools communications officers use to manage and defend the tactical communications network."

In today's threat-based environment, making the network more secure and resilient in contested environments, increasing bandwidth/range, and ensuring the network is easier to use are all key to the Army's modernization goals.

"Experimentation will inform where the complexity should and should not reside as well as tell us how best to modernize the network and train the force," Col. Curtis Nowak, Unified Network team lead, N-CFT said. "We're listening to the Soldiers, and their feedback is making the ITN better."

Air Defense has a New Way to Communicate



B Co, 86th ESB TRILOS Integrated with 3-43 ADA ICC and TCS.
Photo by 1st Lt. Ezie Smoot.

Cpt. Brian B. Marquez, 1st Lt. Ezie Smoot, and CW2 Joseph A. Waters
86th Expeditionary Signal Battalion

U.S. Army Air Defense Artillery units have maintained systems and equipment dependent on legacy, non-IP communications equipment. These analog, serial-based interconnects, have become uncommon outside of the ADA Branch. The Signal Corps once enabled interconnectivity support through Mobile Subscriber Equipment, but the transition to Warfighter Information Networks created a widening gap for enabling ADA combat operations. Signal Corps support to ADA Soldiers became focused toward mission command through the Department of Defense Information Networks.

ADA equipment includes Information Control Centers (ICC), Engagement Control Stations (ECS), Fire Direction Centers (FDC) and Communications Relay Groups (CRG).

Traditional combat arms units use similar technology for fires and maneuver, but ADA uses a proprietary Integrated Fires Network (IFN). Technology advancements and program management hurdles have led to outdated equipment and fading effectiveness when deploying the IFN. Modernization efforts have begun to provide ADA units with TRILOS and highband networked radios, but ADA commanders are reaching out to test and train on this future equipment as soon as possible.

Recently, teams from the Bravo Company Wolfpack, 86th Expeditionary Signal Battalion out of Fort Bliss, Texas, successfully integrated with the ICC and ECS using a Terrestrial Transmission Line of Sight (TRILOS). Several field exercises provided a proof of concept validation that TRILOS can pass Engagement Operations (EO) and Force Operations (FO) battle data between Patriot Systems.

TRILOS equipment was recently fielded to the 86th ESB under the NETMOD program to replace High Capacity Line of Sight (HCLOS) shelters. TRILOS capabilities provide warfighters with a small form factor, low latency, and high-throughput terrestrial capability. The system improves on network robustness by increasing bandwidth through enhanced modulation and waveform shaping. Embedded processing allows for web-based configuration management, internal encryption modules, and multiple-input multiple-output (MIMO) wireless collision detection during full-duplex communications.

The TRILOS system is modular, requires only two Soldiers to install,

B Co, 86th ESB TRILOS setup at Tobin Wells for Point to Multipoint configuration.
Photo by Cpt. Brian B. Marquez



operate and maintain, and can fit in a standard HMMWV M998. Connectivity enhancements allow for direct wiring over copper or fiber ETHER-NET for deployment of significant distances from operations. The system can be expeditiously erected within 30 minutes via an organic Blue Sky Mast. Teams can employ with an array of antennas that maintain legacy compatibility to the HCLOS.

The TRILOS system is significantly more agile and flexible than the Antenna Mast Group (AMG) currently used by the ICC and ECS. With a significantly smaller footprint than the AMG, a TRILOS improves site security, visual signature from a distance, and infill/exfill procedures.

The TRILOS AN/GRC 262 radio has additional advantages that maximize throughput compared to AMG and legacy LOS systems. First, the radio is mounted on top of the mast to drastically reduce antenna to radio signal loss. Secondly, enhanced

modulation, error detection, and error correction increases speed and reach. At 15 meters, the TRILOS can extend communications up to 50km at a maximum throughput of 200 Mbps. Finally, remote-management capabilities allow for offsite monitoring and response to assist with constant link strength and stability.

An AMG system retains HCLOS limitations of 32 Mbps at 42 kilometers. TRILOS enhancements offer the ICC and ECS potential for simultaneously pushing EO, FO, data, voice, and video. The increases in distance and throughput allow network planners to reconsider line of sight transport for better communications with a greater choice of deployment locations. The IFN can be extended with minimized resources and without unneeded transport redundancy.

Overall the TRILOS can deploy faster, employ in more restrictive terrain, shoot further, and pass more data than the current AMG. These enhancements provide commanders an ability to extend operational battle space for improved survivability, weapons displacement, and egress of compromised sites. Teams can maneuver with greater ease while re-establishing communications sooner for reduced downtime and increased fire rate after site change.

Project Manager Tactical Network, with support from Communications Electronics Command trainers, completed 67th Expeditionary Signal Battalion new equipment training and fielding for the small form factor, modular Terrestrial Transmission Line Of Sight radio and several other new expeditionary Signal Modernization capabilities

Photo by Amy Walker



Prototype Has Potential to Change the Force-Structure of Expeditionary Signal Battalions

A group of soldiers in camouflage uniforms are working in a high-tech command center. They are gathered around a large console with multiple computer monitors and control panels. One soldier in the foreground is wearing a headset and pointing upwards with his right hand. The background shows more equipment and shelves with various items. The overall atmosphere is one of focused teamwork and technological sophistication.

Enroute Mission Command (EMC) is part of the new scalable agile equipment package for the Army's new Expeditionary Signal Battalion-Enhanced (ESB-E) pilot, which is being supported by the 50th ESB-E, 35th Theater Tactical Signal Brigade. EMC provides critical in-flight mission command, plane-to-plane and plane-to-ground communications, and situational awareness so commanders can stay ahead of changing battle space conditions enroute to their mission.

Courtesy Photo

Maj. Chad Cooper
35th Theater Tactical Signal Bri-
gade Public Affairs

The current U.S. Army Sig-
nal force design does not ena-
ble large scale mission com-
mand to expeditionary forward
-deployed warfighters in both
austere and hostile operating
environments.

One improved capability,
which supports military contin-
gencies as well as national
emergencies, is based on a
command and control pack-
age that incorporates every-
thing over Internet protocol.

U.S. Army's 35th Theater
Tactical Signal Brigade's, 50th
Expeditionary Signal Battalion
- Enhanced (ESB-E) is the

Army's prototype for innovation. The Army's Enroute Mission Command (EMC) communication new network equipment package is more rapidly deployable, reliable, secure and capable communications system are de-
fining the next generation of communications gear for the U.S. Army. A
modernization program which leverages emerging commercial-off-the-
shelf technologies to enhance capability and capacity to meet joint oper-
ating requirements.

"The 35th TTSB is available for worldwide deployment in support of
any Combatant Command," said Col Matthew Foulk, 35th TTSB, com-
mander. "The current signal force structure is not going to meet the
Army's expectations in the future. A few years ago the Army instituted
three separate pilots: the division signal battalion, enhanced G6/S6 and
then a JCSE like unit that can provide that capability. The Chief of Staff
of the Army decided to go with the JCSE like element and the 50th
[Expeditionary Signal Battalion-Enhanced] was chosen to be that ele-
ment and help evolve the network for the future. I took over as the G6 of
the 101st Airborne Division in June of 2014 and within 90 days I was sit-
ting on the west coast of Liberia, but I could not provide that capability to
the division commander because our equipment was not scalable. So I
think the most important thing coming out of the 50th prototype is the
scalability, and the kit seamlessly scales support from an early-entry
package to a full joint force headquarters or even a Field Army. In the
current force structure we can't do that."



Soldiers from the Army's new 50th Expedi-
tionary Signal Battalion-Enhanced (ESB-E)
pilot unit demonstrate the unit's new scalable
expeditionary tactical network equipment
package during a system demonstration.
Photo by Amy Walker

As part of the Army's continued efforts to modernize the
tactical network, Soldier feedback from the 50th ESB-E
support to training, operational and field exercises is help-
ing shape potential future equipment solutions and force
structure for the service's 24 ESBs.

The 50th ESB which as a core competency provides
operational agility to combatant commanders and their
joint task forces, is the organization behind this innovation.
The Army will use Soldier feedback from the pilot to inform
the Army's ESB network capability design decisions.

The U.S. Army in conjunction with the Program Executive Office Command Control Communications Tactical (PEO C3T) office has conducted thousands of hours of engineering and testing during the past 10 months to finalize the development, accreditation and certification of this communications architecture.

In the past 10 months, the 50th has operationally tasked the newly certified system to support both unclassified and classified missions in Korea, European theater, and over 14 U.S. and coalition missions worldwide. "This equipment has allowed us to dramatically increase our capability. It has enhanced our ability to run simultaneous operations in multiple areas of operation." said Lt. Col. Ronald Lammartino, 50th ESB-E, commander. "Based on these operational successes, units throughout the Defense Department are employing technology to meet the rigor-

ous demands and time lines of their missions. The feedback that we've received over these exercises has come with praise and recognitions that are truly appreciated. Bridging complex command, control, communications and computer technical hurdles. This modernization program which leverages emerging commercial-off-the-shelf technologies to enhance capability and capacity to meet joint operating requirements utilizing both UHG and cellular technologies. The commander, we supported during Roving Sands 2019, which is a three-week long joint air defense exercise held at Fort Bliss, Texas that focuses on training and certifying the Air Defense Artillery units, said, 'The ESB's new equipment allows us to be a lot more flexible and expeditionary in nature, we have used these kits for multiple rapid tactical jumps and scaled up to our main tactical operations center, this new capability is outstanding.'

With the ease of use and scalability this new kit empowers young Soldiers to become multifaceted multifunctional Soldiers able to meet requirements for supported units.

"The biggest take away is we really didn't have to find where we fit we were able to adjust our capabilities with what the requesting unit needed," said Spc. Keeton, a communications Soldiers assigned to the 50th ESB-E. "Also we were able to work on an airborne operations where we were able to rapidly jump with our kit and provide classified and unclassified services to the combatant commander's AO in a matter of seven minutes further proving the impact of this kit."

The end state Expeditionary Signal Battalion-Enhanced (ESB-E) capability package will enable the ESBs to support commanders and paratroopers enroute in an aircraft, small team-sized units in initial entry operations and scale-up to support mature operations as supporting forces continue to grow on the ground.
Photo by Sgt. Gregory T. Summers.



Army Fields First Armored BCT with High-Capacity Network Systems



In the foreground photos, the Army fielded its high-throughput Terrestrial Transmission Line Of Sight Radio for the first time to a brigade combat team. In the background photo, 1st ABCT, 3rd ID tankers conduct gunnery exercises at Rodriguez Live Fire Complex, Republic of Korea .

Photo by Amy Walker

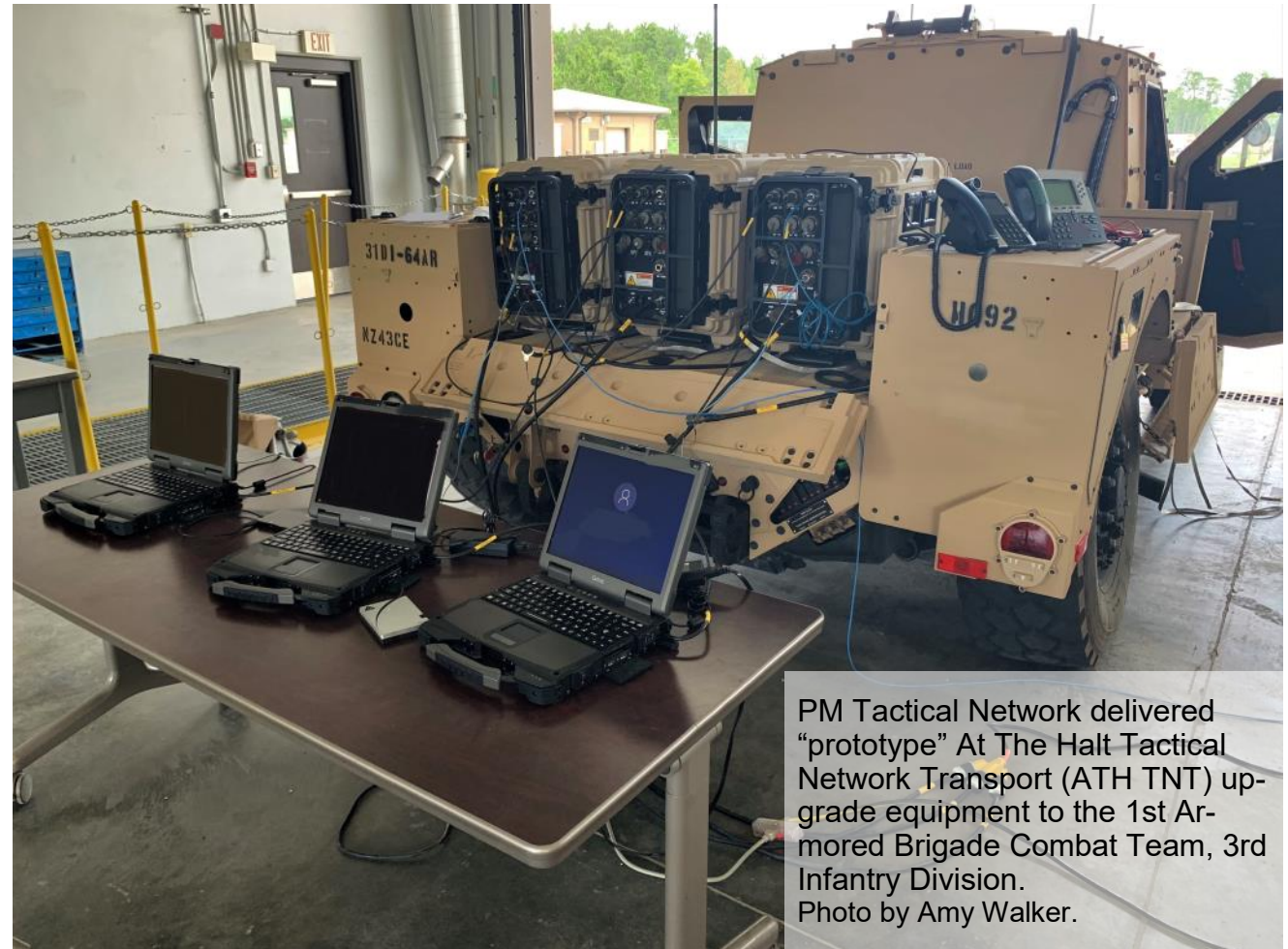


Amy Walker
PM Tactical Network/PEO C3T
Public Affairs

For the first time, the Army fielded its high-throughput range-extending Terrestrial Transmission Line Of Sight Radio, known as TRILOS, to a brigade combat team -- the 1st Armored Brigade Combat Team, 3rd Infantry Division.

The Army fielded the unit with TRILOS and several other expeditionary network modernization systems and prototypes to enhance network data exchange, mobility, and signal path diversity.

"The enemy has a vote and they are going to deny our ability to communicate anyway they can," said Maj. Thomas Allen, communication officer (S6) for 1st ABCT, 3rd ID. "With the TRILOS Radio, if our satellite communications is jammed from a near peer, or the satellite network is out, we will still be able to share the local area network inside the brigade to our down-trace units, and receive



PM Tactical Network delivered "prototype" At The Halt Tactical Network Transport (ATH TNT) upgrade equipment to the 1st Armored Brigade Combat Team, 3rd Infantry Division. Photo by Amy Walker.

updates from division if we are within their line-of-sight. TRILOS enables our ability to spread information across the battlefield; it helps operationalize our communications architecture and Primary, Alternative, Contingency Emergency (PACE) plan."

Originally, the TRILOS Radio was slated to be fielded to expeditionary signal battalions (ESB) only, but the Army reprioritized the basis of issue to include brigade combat teams. In September 2019, the Army also fielded the system to its first Army National Guard unit – the Florida ARNG 146th ESB. TRILOS is key component of the Army's Capability Set 21 fielding and other tactical network modernization efforts.

PM Tactical Network concluded new equipment training on the high-throughput Terrestrial Line Of Sight (TRILOS) Radio to the 2nd Armored Brigade Combat Team, 3rd Infantry Division.
Photo by Amy Walker.



TRILOS replaces the much larger legacy at-the-halt High Capacity Line Of Sight Radio (HCLOS), which is nearing end of life. The expeditionary transit case-based TRILOS Radio sets up more quickly and delivers a 12-fold increase in bandwidth and six-fold increase in range.

“We can push TRILOS out to different units, and they just plug it into their [tactical network] Command Post Nodes and get that high bandwidth connectivity,” said Cpt. Brian Wright, network operations officer for the 1st ABCT, 3rd ID. “At the end of the day, the TRILOS provides more capability and enhances readiness.”

Additionally, unlike the single channel HCLOS, the dual channel TRILOS radio can execute two responsibilities at the same time – it provides point-to-point and point-to-multipoint communications, enabling Soldiers to shoot multiple shots with one antenna mast, versus needing extra antennas to shoot to multiple terminals.

“It’s important for commanders to have redundant forms of communications so they have choices, alternative ways to get the information they need when they need it,” said Pfc. Alyssa Hernandez, network system operator for the 1st ABCT, 3rd ID. “TRILOS also provides much more throughput and it’s much easier to send information.”

During the TRILOS new equipment training, Hernandez and the other Soldiers said that the system is also much easier and faster to set up, operate, and maintain. They completed training in a week, versus the roughly 16 weeks of training needed for the more complex legacy HCLOS sys-

tem.

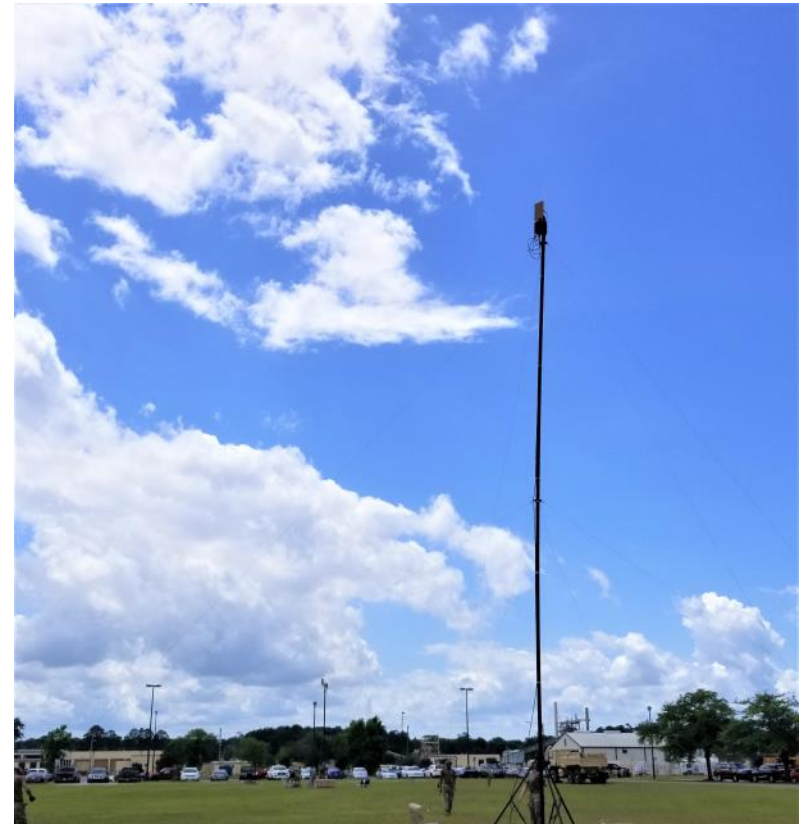
Along with the TRILOS Radio, Project Manager Tactical Network, assigned to the Program Executive Office for Command, Control, Communications-Tactical, fielded the 1st ABCT, 3rd ID with additional expeditionary communications equipment, including network extension packages that enable coalition interoperability; the small form factor Modular Communication Node-Advanced Enclave for intelligence data sharing; and upgrades to the unit's Secure Wireless and Global Broadcast System that increase capability and ease of operation. The PM provided the new equipment training and fielding for this expeditionary tool suite in May 2019, at Fort Stewart, Georgia.

In September 2019, PM Tactical Network also equipped the unit with "prototype" at-the-halt tactical network upgrade equipment, which will support the next equipment refresh for the Army's At The Halt Tactical

Network Transport equipment. Soldier feedback from the pilot will inform capability and basis of issue decisions, enabling the Army to field the right mix of equipment across the force. This upgrade is expected to reduce setup time, make the systems easier to operate and maintain and provide more computing power in a smaller footprint. These benefits are derived from new commercial-of-the-shelf hardware, software and virtualization technologies. The new network equipment will be deployed in transit cases with tow handles and wheels, versus permanent shelter integration, increasing maneuverability and operational flexibility.

The 1st ABCT, 3rd ID will use its new expeditionary network equipment and prototypes during its training rotation at the National Training Center at Fort Irwin, California, in early 2020. Following the rotation, the unit will provide additional feedback to inform continual system improvements and operation.

"It's very critical that we have that robust network connectivity on the battlefield," Allen said. "These capabilities enhance our shared understanding across the brigade and enable the commander to make informed decisions."



The Army's Project Manager Tactical Network provided Terrestrial Transmission Line Of Sight (TRILOS) Radio new equipment training and fielding to 1st Armored Brigade Combat Team, 3rd Infantry Division. This is the first BCT to receive this system. Photo by Amy Walker.



Nick Spinelli
Office Chief of Signal

The world recently said goodbye to another entertainment legend, when comedian Rip Taylor died, October 6, at the age of 88. Taylor was renowned in show business, performing around the world for decades. His signature bushy mustache, exaggerated delivery, and piles upon piles of confetti were instantly recognizable, even to those unfamiliar with his act. What many don't know is that this celebrated comedian began his career as a Signal Soldier.

"I was drafted into the Signal Corps, and they put me on a troop ship for 17 days," Taylor said in an older interview with *Lifestyle Magazine*.

During the transit overseas, Taylor said he would entertain

his fellow Soldiers by "mouthing along" with records in order to help distract the others from their sea sickness.

"That's how I really started in the entertainment business," he said. "And then we get there and they send me to Korea to get shot at."

Fortunately, Taylor said he was quickly moved to Special Services where his job became to entertain the troops.

"They said, 'get the guy who was funny,'" he said.

After his time in the Army, Taylor returned home and began the comedy career he would enjoy for the remainder of his life. He became famous for punctuating bad jokes by crying dramatically and throwing confetti. He appeared on *the Ed Sullivan Show* in the early sixties, and was asked to return almost 20 times even though he claims the host could never remember his name.

"He forgot my name but used to say, 'Get me the crying comedian,'" Taylor said.

His stand up career led to multiple Broadway, movie, and television appearances, and even an Emmy nomination for his voice role as Uncle Fester in the *Addams Family* cartoon.

But while Taylor – whose actual name was actually Charles Elmer Taylor, Jr. – said he loved to make people laugh, he viewed himself not as a comedian but as an actor and "Rip" his most popular character.

"Rip is funny because he's crazy. Every night on stage, he's cornered and put-upon," Taylor said in a 1992 interview. "That's what I am bringing into play as a straight actor."



Rip Taylor
Courtesy photo

In the next issue of the

ARMY COMMUNICATOR...



Enlisted MOS Convergence